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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/586,858	06/05/2000	Avery Osgood	GSI-005	8377

7590

08/24/2004

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EXAMINER
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SIEFKE, SAMUEL P

ART UNIT	PAPER NUMBER
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1743

DATE MAILED: 08/24/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>		<b>Applicant(s)</b>	
	09/586,858		OSGOOD ET AL.	
	<b>Examiner</b>		<b>Art Unit</b>	
	Samuel P Siefke		1743	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on RCE 7/23/04.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-18 and 102-133 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-18 and 102-133 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |   |   |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                        | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)    | Paper No(s)/Mail Date. _____  |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____   | 6) <input type="checkbox"/> Other: _____                                    |

## **DETAILED ACTION**

### ***Response to Arguments***

Applicant's arguments filed 7/23/04 have been fully considered but they are not persuasive. These are identical arguments that were presented in the After Final Amendment 11/03/03 and were addressed in the Advisory Action dated 4/27/04. Below is the remarks addressing each individual argument presented.

Applicant argues, "760 and Montague ('752) references disclose an annular nozzle 200 directs fluid along the sides of the pin. For example, the '752 reference in col. 2, lines 34-39, states that there is "a cleaning station (that) comprises a fluid jet arranged to blow down along the length of the deposit device toward its drop depositing end." Examiner would like to specifically point to column 4, lines 32-44. and even more to lines 37-42, "preferably a cleaning or drying station comprising a circular nozzle is constructed to discharge a conical flow of fluid... high pressured liquid... against (impinging) a deposit device (being a pin or pin -like structure." Webster's 11 New Riverside University Dictionary defines impinge as; (1 ) to push against, (2) to collide or strike, Reference '752 does just this. Applicant argues "the reference does not anticipate claim 1 even if it can be said to disclose impinging against the pin of the deposit device." Col. 4, lines 37-42 do just this. It is inherent that '758 impinges a cleaning fluid on the tip of the pin because in the pin itself is the depositing device (col. 9, lines 16-50) Applicant argues that the prior art does not teach or suggest directing a wash fluid at the pin tip in a swirling pattern. Examiner points out that the mere act of multiple streams impinging on the pin would create the "swirling" pattern recited.

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Applicant argues that washing the pin comprises impacting the pin with pulsed streams of wash fluid and drying the pin before next round of pulsing. Examiner points out to col. 10, lines 22-34 as cited before in the First Office Action. "The pin and ring are first exposed to one or more simultaneous or successive fluid currents or blasts of continuous or pulsed flow that blow remaining sample fluid from the parts and into the trap. Subsequently a fluid stream of liquid or air may expose the parts to cleaning fluid such as liquid stream or aerosols containing water-borne detergents. Applicant argues that the prior art does not teach drying a pin by flowing air past the pin with the air being of a lower humidity than the air in an enclosure containing the spotting instrument. Column 10 lines 32-34 teach that an air current from the nozzle, supplemented by induced air flow 204, can dry both pin and ring, in which case the air streams may be heated. The air being introduced into the chamber for drying is inherently dryer than the air around the tip of the dispensing nozzle because when heated the water on the nozzle is evaporated into the surrounding air making the air around the nozzle have more humidity than the incoming air. Applicant argues that claim 18 is allowable because washing the pin with a wash fluid while applying a vacuum to remove wash fluid previously applied to the pin. The purpose of the vacuum pump is to create a vacuum so that when a pin is washed the vacuum removes the wash fluid previously applied to the pin (claim 1). Drying the pin is accomplished by an air current from the nozzle, supplemented by induced air flow 2% (col. 10, lines 1 1-34).

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

Claims **1-18, 102-133** are rejected under 35 U.S.C. 102(a) as being anticipated by WO 99 36760 A (Genetic Microsystems, Inc.).

'760 discloses an apparatus for washing and drying a pin of a microarray spotting instrument that comprises: moving a pin to a given position; washing the pin while in a given position by impinging fluid against the pin; and drying the pin without substantially moving the pin from the given position (page 10, lines 5-25); moving the pin comprises positioning a pin in a given location (chamber or tube, fig 9F and 9G) in a pin washer/dryer apparatus; washing the pin comprises directing multiple streams of wash fluid at the pin; drying the pin comprises flowing air past the pin (vacuum; page 44; lines 1-18); (page 10, line 5- page 11, line 25; page 43, line 25 - page 44, line 18; page 47, lines 7-18).

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) do not apply to the examination of this application as the application being examined was not (1) filed on or after November 29, 2000, or (2) voluntarily published under 35 U.S.C. 122(b). Therefore, this application is examined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

Claims **1-18, 102-133** are rejected under 35 U.S.C. 102(e) as being anticipated by Montagu (USPN 6,428,752).

Montagu discloses an apparatus for washing and drying a pin of a microarray spotting instrument that comprises: moving a pin to a given position; washing the pin while in a given position; and drying the pin without substantially moving the pin from the given position; moving the pin comprises positioning a pin in a given location (chamber or tube, fig 9F and 9G) in a pin washer/dryer apparatus; washing the pin comprises directing multiple streams of wash fluid at the pin; drying the pin comprises flowing air past the pin (vacuum; col. 10, lines 18-20); (col. 2, lines 25-50; col.4, line 27 - col. 5, line 46; col. 10, lines 6-34; col. 15, lines 8-61; claims 1-14).

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Samuel P Siefke whose telephone number is 703-306-0093. The examiner can normally be reached on M-F 7:00am-5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jill A. Warden can be reached on 703-308-4037. The fax phone numbers

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for the organization where this application or proceeding is assigned are 703-872-9311

for regular communications and 703-872-9310 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0661.

Sam P. Siefke



August 20, 2004

Yelene Gab

Yelene Gab

primary examiner Au 1743